Extended Abstract

Title: GIS for Mapping Condom Coverage, quality of coverage and access to condom among women working in HIV Risk Zone in Nepal: A method to measuring condom performance for strategic planning in combating HIV/AIDS transmission

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Conference Stream: Safer sex, HIV/AIDS and contraception: the place of condoms

Statement of Problem / Issue: In recent years the HIV/AIDS epidemic in Nepal has gained greater significance and Nepal has progressed from a "low prevalence" country to one with a so-called concentrated epidemic in certain sub-groups of the population (e.g. sex workers, injecting drug users). Responding to this, national HIV/AIDS prevention efforts have focused on increasing correct and consistent usage of condoms among these groups. To support these efforts, HIV risk zone mapping is an innovative research project designed to measure the condom coverage, quality of coverage and access to condom in areas known for high-risk sexual activity, so as to facilitate increased availability of condoms to these high-risk groups. The study was carried out in 15 districts of Nepal to assist evidence-based programmatic decisions to fight against HIV, monitor product and service performance and to objectively measure coverage, quality of coverage and access to condom.

Purpose and Process: This study is designed to evaluate and monitor the performance measurements (coverage, quality of coverage and access) for product targeted to specific sub-groups of population known as population at HIV risk to fight against HIV/AIDS and to achieve health impact. In this process, the expected outcome product of the study and its use in the programmatic decisions, the methodology, objectives and data collection process were first shared and discussed within the internal stakeholders (the donor: USAID, the program implementer: AED N-MARC project and the independent research organization: MITRA Samaj). The final outcome of this meeting was further shared with external stakeholders that are one or other way involved in similar nature of activities. This includes partner INGOs and NGOs, UNAIDS and the condom distributors. A study team formed by MITRA Samaj was equipped with necessary trainings and tools ands were assigned to collect required information from the sampled study site. The information collected was processed and analyzed by the research team was shared with all the stakeholders involved in one or other stage of the study design phase as well with the stakeholders at regional level.

Unit of analysis and outcome measures

The geographical area is the unit of analysis where condom selling outlets were enumerated in all sampled hot zones. The data then were inputted in the GIS software and the coverage, quality of coverage and access were calculated as well as fed in the map of Nepal to portray the coverage and access situation in the hot zones.

Population covered:

Hot zones in HIV risk area where hot-zone is defined as cluster of hot spots and **hot spot** is defined as place where sex negotiation or sexual acts occur.

Definition of indicator covered:

- **Condom Coverage**: The proportion of geographically defined residential areas in which a minimum level of product (condoms) or service availability is present.
- **Quality of condom coverage**: The proportion of geographically defined residential areas in which the product (condoms) or service delivery system conforms to minimum standards of adherence to recommended prices, promotion visibility, inventory and other selected standards set out by the program.
- **Access to condom**: The geographic distance between central measures of residents in area "A" to product/service delivery points in catchments area.

The study uses two sets of tools: GPS units to collect GIS coordinate and brief retail audit sheet administers to retail outlets to collect relevant information on condom product. As the first step, a complete enumeration of hot spots, defined as place or point where sex negotiation occurs; was completed. From this information hot zones were created as a geographic area consisting of hot spots. The list of hot zone provided a sample frame from which 19 hot-zones were selected using a systematic random sampling as suggested by the Lot Quality Assurance survey method. This is pioneering work because it has created well defined hot-zones for targeted programmatic interventions. The hot zones can also be used to collect additional information that can be linked to assess program performance as well as monitor market performance over time, particularly the objectively verifiable product/service delivery.

Statement of Findings: Overall, condom coverage was good, with over 70% of high-risk areas having at least one condom-selling outlet per five high-risk meeting places. Donor subsidized condom coverage ranged 35% to 95%, while non-subsidized condom brand coverage ranged 20%-85%. The quality of condom coverage remains poor, primarily due to low product and promotional material visibility as well as few high-risk areas having the appropriate number of condom-selling outlets opens at night. In all three study areas, the access to condom indicator was lower than coverage.

Strategies and Recommendations: The study has highlighted the need to focus condom marketing and distribution efforts on increasing the number of condom-selling outlets in each high-risk area, the number of outlets displaying condoms and promotional materials, and the number of outlets open at night.